

MEETING MINUTES

Staff and Team Meeting 10-16

Meeting Date: 10-16

Meeting Time: 5:30pm – 7:00pm

Attendees: Aaron, Gia, Logan, Michelle

Table 1: Meeting Minutes

<p>Team Meeting 5:30 – 7:25pm</p>	<p><u>1st Prototype</u></p> <ul style="list-style-type: none"> - 3D printed bars and corners - Scale: 2in:1ft scale. For 12x8 cleanroom the prototype would be 24inX16in. Determine what percentage of a scale this would be? - Computer case fan with a 3D printed flow reducer (Gia has a AMD Wraith Prism CPU fan) - How can we power the CPU fan without a computer? - Logan has 3 Arduinos he can bring for power - How do we scale the velocity down for the prototype? - Questions to answer: flow patterns, pressure gradient, distance of walls from floor <p><u>2nd Prototype</u></p> <ul style="list-style-type: none"> - Include backup battery? <p><u>Report 1</u></p> <ul style="list-style-type: none"> - Wrote out duties on 	<p>ENG 314</p>
<p>Staff Meeting 7:30 -</p>	<p>Report Questions –</p> <ul style="list-style-type: none"> - Cost analysis can go in the Selection Criteria <p>Prototype:</p> <ul style="list-style-type: none"> - Optimizing wall height – have it informed with calculations - Given the fans, how does the different wall heights cause different back pressure? - Find the range requirement for pressure differences in cleanroom. - Acrylic walls? - How thick does the wall need to be? Willy is very concerned about this flexing and cracking. - Calc for when fan is on: 0.1 atm to square inches creates 671 psi of pressure per sheet - FEA analysis: distributed load that equals the 0.1 atm -> counts as a virtual prototype. Can be done in Solidworks. - Can add secondary members that are thinner square/rectangular tubes to help with distributed loads - Can do 2 virtual prototypes 	

Table 2: Action Items for Next Meeting

Action Item	Person Assigned	Due Date
Bring CPU fan and remove it from heat sink	Gia	
Submit paperwork for purchasing	Gia	
Look into Arduino codes that could control the CPU fan	Logan	
Take a trip to Home Depot to see widths of sheets (is 1/16 th thick enough)	Michelle & Gia	